Cartegraph™

OPERATIONS MANAGEMENT

An Introduction for Local Governments

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Operations Management is a broad term whose meaning differs from industry to industry. So what does operations management mean in the public sector? And where does it fit in today's local government operations? The goal of this paper is to help local government organizations understand operations management—what it does, why it works—and begin thinking about how to implement its strategies and technologies in their organizations to become more effective, efficient, and productive.

What is operations management for local governments?

Academically speaking, operations management for local government is a set of integrated, multidisciplinary strategies for maintaining, upgrading, and expanding physical assets effectively throughout their life cycles. The fundamental goal of operations management strategies, and the technologies that support them, is to preserve and extend the service life of assets and proactively streamline the processes by which those assets are managed. This is accomplished by intervening at strategic points in an asset's normal life cycle in order to improve its current performance.

The three key principles that underpin operations management:

1. Recognize the economic value of your assets.

2. Optimize the money being invested in each asset over its life cycle.

3. Collaborate as an organization to ensure public assets are functional and safe.

Isn't the public sector's traditional asset management approach enough?

No. The need for operations management strategies and technologies is increasing because of the evolving demands of today's citizens. Traditional asset management methods—those based on paper record keeping, data silos, and reactive asset maintenance—are no longer efficient, or sufficient, for meeting 21st century business and customer service goals.

What makes technology-driven operations management so effective?

- Helps define and document long-term goals.
- Aligns leadership within the organization.
- Facilitates informed, data-driven decisions.
- Integrates departments, initiatives, and budgets.
- Provides modern tools for creating benchmarks and measuring outcomes.
- Focuses on continuous operational improvement.

In local government, operations management principles are applied to nine major asset categories:
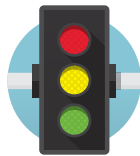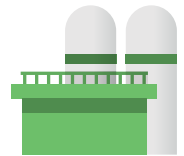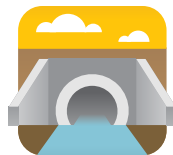
Transportation	Signals	Parks & Rec	Walkability	Facilities

Sanitary Sewer	Storm Water	Water Distribution	Flood Control

Where should an organization begin?

For a variety of reasons, existing asset management practices vary among organizations, and even within them. Plus, the characteristics of different communities vary considerably. For example, the needs of a sparsely populated county likely differ significantly from those of a major metropolitan area. These disparities are the reason that a "one size fits all" operations management strategy does not exist.

The goal of every operations management system and strategy is to identify needs, set realistic goals, and streamline processes across the entire organization. The smartest way to accomplish these things is through a sequence of best practice steps. When considered carefully and followed in order, these seven essential steps result in an operations management strategy that is tailored to your organization.

1 COLLECT DATA

Smart operations management is powered by data—current, accurate data that tells you exactly what assets you have and where they're located. Collecting good data is crucial to making good decisions and implementing a productive operations management strategy.

2 ASSESS CONDITION

One thorough inspection tells you how an asset is performing, how much life it has left, and whether it's worth the money you spent on it. Use condition data to assess your organization's current and future needs.

3 VALUATE

Consider the asset's purpose and place in your infrastructure, and what happens if it fails. Valuation is an essential operations management step because it requires you to prioritize your assets and the resources necessary to sustain them.

4 GAUGE PERFORMANCE

Identify the factors that measure the asset's performance. At what point is it considered faulty or unsafe? Does the public expect it to look good? Answering questions like these reveals the baseline for maintaining the asset.

5   CREATE A STRATEGY

There's a time to repair and a time to replace. Create an operations management strategy that is proactive in its scope and realistic for your organization and workforce. Use data and cost-benefit analysis to help you decide what to do and when to do it.

6   PUT INTO PRACTICE

Install, maintain, inspect, and, if need be, replace. Then do it all again for every network and asset. With a well-planned strategy in play, you'll steadily improve your infrastructure and the database supporting it.

7   FOLLOW THROUGH

Smart operations management is the byproduct of patience, planning, and execution. Regular, proactive monitoring is the key to working efficiently and the easiest way to ensure that assets are maintained to your satisfaction.

Do you know your users?

Technology doesn't guarantee operations management strategy success. Before choosing a system or solution, it's absolutely crucial to carefully consider the needs of the people who will use the system on a day-to-day basis. Ideally, the system you choose is capable of simultaneously meeting the needs of people in different roles and at multiple levels of your organization.

What users need to find success with operations management technology:

FIELD PROFESSIONAL

- **Easy to learn and use.**
  Straightforward, intuitive, and friendly. No tech savvy required.

- **Optimized for the field.**
  Streamlined workflow enables users to complete work accurately and on time.

- **Real-time tasks and data.**
  Easy access to real-time data via tablets and smartphones.

SUPERVISOR

- **Quickly assign work.**
  Create and assign tasks to field professionals in real time.

- **Gauge progress.**
  Immediately see the progress and status of tasks and work orders.

- **Plan ahead.**
  Plan, group, and relate tasks to maximize efficiency.

GIS ADMINISTRATOR

- **Tight integration.**
  Bolsters the accuracy and value of the exisiting geodatabase.

- **Shared access.**
  Enables non-GIS users to benefit from existing maps.

- **Protection and security.**
  Review new data and edits before they're published to the geodatabase.

DIRECTOR

- **Simple reporting.**
  Easily gather and filter data and create detailed reports.

- **Advanced analytics.**
  Understand exactly how time and money is being spent.

- **Better decisions.**
  Accurate, timely data makes for well-informed decisions.

CHIEF INFORMATION OFFICER

- **Bolster communication.**
  Use real-time data to inform the public of work progress and statuses.

- **Improve customer service.**
  Respond quickly and accurately to citizen inquiries and concerns.

- **Share success.**
  Tell your community when goals are achieved and efficiencies are gained.

IT

- **Minimal deployment and maintenance.**
  The system does the heavy lifting.

- **Maximum security.**
  Complete control of security and permissions. Minimal administration.

What are the traits of good operations management technology?

Just like operations management strategy itself, there is no "one size fits all" system. However, there are steps that local government organizations can take to avoid mistakes and overcome the challenges associated with researching, selecting, and implementing the right operations management technology.

Things to look for when choosing an operations management system:

USER-CENTRIC DESIGN

When choosing an operations management system, consider the ease of use and intuitiveness of its design. A clean and simple interface enables workers to concentrate on the task at hand, rather than trying to muddle their way through inefficient software that makes tasks more difficult to manage and complete.

MOBILITY

The operations management system you choose needs to provide optimal power and functionality for the mobile workforce. Look for a system that performs as well, or better, on a mobile device as it does in the office. That way, no matter where the asset is located, your mobile workforce has everything it needs to access and complete work accurately and on time.

DATA ORGANIZATION

Does the system make it easy to input, view, and find data? If not, look elsewhere. Quick, easy access to well-organized data, such as a particular asset's work and inspection history, helps your team to make well-informed decisions when performing their work in the office or on the go.

ADAPTABILITY

Identify your technology needs today and consider how those needs might evolve in the future. Use that knowledge to choose technology that has the ability to expand and grow with the needs of your community and the operations that service it.

INTEGRATION

It takes more than one system to keep an organization running efficiently. Operations management is the place where all those enterprise systems connect. The right system integrates easily with everything from your fuel management system to your 311 request platform, and will share data with them in real time.

CROSS FUNCTIONAL

Any operations management system must be able to meet the needs of multiple departments and areas of your organization. Organization-wide thinking—along with the communication and collaboration that makes it successful—isn't possible using a system that creates data silos. Productivity and decision making improve when every user has access to the best data available.

Now You Know

Now that you have a basic understanding of the what, why, and how of operations management, you can begin thinking about your organization's evolution to it. By using the insight and following the best practices outlined in this white paper, you'll position yourself to make better decisions about when and where to begin implementing operations management strategies and technology into your day-to-day operations.

IF YOU LIKED THIS GUIDE YOU'LL LIKE THESE ADDITIONAL RESOURCES:

ABOUT CARTEGRAPH

Cartegraph is in the business of building high-performance government. They offer software solutions that help local government agencies manage their physical assets and associated operations. With Cartegraph, users optimize the life of their infrastructure, deploy maintenance resources efficiently, and increase productivity.

To build high-performance governments, Cartegraph uses a comprehensive, three-pronged approach that combines success coaching, expert consulting, and state-of-the-art software solutions for asset, work, and resource management to help agencies capture data, analyze it, and prepare for the future. For more information, visit cartegraph.com.